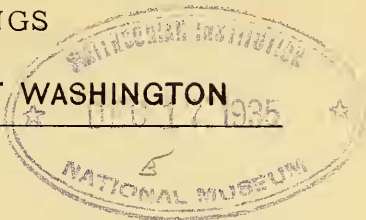


PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON



THE COMMON BOX-TURTLE, A NATURAL HOST FOR
CHIGGERS.

BY H. E. EWING.

On July 10 of the present summer (1925) the writer picked up a mature specimen of the common box-turtle, *Terrapene carolina carolina* (Linné), in a swampy woods near North Beach, Maryland. An examination of the specimen with a hand lens revealed that it was infested with a reddish orange mite, the mites being concentrated in the fossae of the posterior legs and about the base of the tail.

The turtle was brought to the United States National Museum and placed in a breeding jar suitable for rearing chiggers. Some of the mites were removed and examined with the microscope. They were found to be the larvae of *Trombicula irritans* (Riley), the common North American chigger.

On July 16 one engorged larva was observed detached, crawling about in the soil contained in the breeding jar.

On the 18th most of the chiggers were observed to have detached themselves, and the host was removed from the breeding jar. By the 22d, only twelve days after the turtle was captured, not a single chigger remained attached.

By July 24 a nymph had emerged from one of the engorged, quiescent, soil-inhabiting larvae, and the next day another nymph was detected. The nymphs were removed on the 25th and killed for study.

On August 4 all the soil in the breeding jar was thoroughly examined and removed. Two additional nymphs were obtained, one being killed and one being placed in a small breeding cell with cockroach feces for food. This second nymph lived for many days, dying on September 4 without any further transformation.

On July 23 two infested box-turtles were found in the same woods where the first one was obtained. These two were placed together in a small breeding box provided with sand at the bottom. On July 25 a third infested turtle, found the day before in the same woods as the others, was placed in the breeding box.

From these three infested turtles there were eventually obtained 24 nymphs and 2 adults of *Trombicula irritans* (Riley).

The finding of chiggers upon the common box-turtle may help explain the great abundance of chiggers in the swampy woods of the Atlantic Coast Region, but as yet insufficient data are available for the proper estimation of its relative importance as a host. It should be noted, however, that the chiggers engorge rapidly on the box-turtle and drop off without difficulty. Also, it should be remembered that the turtle host molts but once in a season, and that this molt normally takes place in the fall of the year, usually after the chigger season is over.

The conditions of parasitism on the box-turtle are vastly different from those obtaining in the case of certain snakes known to be attacked by chiggers. On the snake hosts the chiggers engorge very slowly and detach with difficulty. Further, the snakes molt several times during the season, and at each molt destroy the partly engorged chiggers that are attached to their skin.